

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER Davis Canyon 7-12-13-25					
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT DAVIS CANYON					
4. TYPE OF WELL Gas Well <input type="checkbox"/> Coalbed Methane Well: NO <input type="checkbox"/>						5. UNIT or COMMUNITIZATION AGREEMENT NAME DISPLACEMENT POINT					
6. NAME OF OPERATOR FOUNDATION ENERGY MANAGEMENT, LLC						7. OPERATOR PHONE 918 585-1650 212					
8. ADDRESS OF OPERATOR 16000 N Dallas Parkway Ste 875, Dallas, TX, 75248						9. OPERATOR E-MAIL reisterhold@foundationenergy.com					
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU70247			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>					
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')					
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')					
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>					
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP		RANGE		MERIDIAN	
LOCATION AT SURFACE		1610 FSL 1902 FEL		NWSE	12	13.0 S		25.0 E		S	
Top of Uppermost Producing Zone		1610 FSL 1902 FEL		NWSE	12	13.0 S		25.0 E		S	
At Total Depth		1610 FSL 1902 FEL		NWSE	12	13.0 S		25.0 E		S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 1140			23. NUMBER OF ACRES IN DRILLING UNIT 1989					
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completion) 2005			26. PROPOSED DEPTH MD: 4461 TVD: 4461					
27. ELEVATION - GROUND LEVEL 6397			28. BOND NUMBER COB000356			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Ouray Municipal Water Plant					
Hole, Casing, and Cement Information											
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight	
Surf	12.25	8	0 - 300	24.0	J-55 ST&C	0.0	Class G	205	1.15	15.8	
Prod	7.875	4.5	0 - 4461	11.6	J-55 LT&C	7.0	Unknown	595	1.15	15.8	
							Unknown	355	1.99	12.3	
ATTACHMENTS											
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES											
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN					
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER					
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP					
NAME Andrea Gross			TITLE Project Coordinator			PHONE 303 941-0506					
SIGNATURE			DATE 07/05/2016			EMAIL agross@upstreampm.com					
API NUMBER ASSIGNED 43047555480000						APPROVAL					

Received: July 06, 2016

Foundation Energy Management, LLC
Davis Canyon 7-12-13-25
1,610' FSL 1,902' FEL (NW/4 SE/4)
Sec. 12 T13S R25E
Uintah County, Utah
Surface: Federal
Federal Mineral Lease: UTU70247
Federal Displacement Point II Unit: UTU89378X

DRILLING PROGRAM

(All Drilling Procedures will be followed as Per Onshore Orders No. 1 and No. 2)

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process, as stated in Onshore Order No. 1 (OSO 1) and supporting Bureau of Land Management (BLM) documents. This NOS process included an onsite meeting on April 25, 2013, prior to the submittal of the application, at which time the specific concerns of Foundation Energy Management, LLC (Foundation) and the BLM were discussed. All specific concerns of the BLM representatives are addressed herein, as are specific stipulations from the BLM.

Please contact Mr. Matt Stark with Foundation at, 303-861-9504, if there are any questions or concerns regarding this Drilling Program.

SURFACE ELEVATION – 6,397.6' (Ungraded ground elevation)

SURFACE FORMATION – Green River – Fresh water possible

1. ESTIMATED FORMATION TOPS – (Water, oil, gas and/or other mineral-bearing formations)

Formation	TVD	
Mesa Verde	780'	
Sego	2,627'	
Castlegate	2,878'	Sandstone, shales & siltstones
Mancos B	3,998'	Sandstone, shales & siltstones
Mancos Shale	4,361'	Sandstone, shales & siltstones
TOTAL DEPTH	4,461'	

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS, OR MINERAL BEARING FORMATIONS

Estimated depths at which water, oil, gas or other mineral-bearing formations are expected to be encountered:

Formations	TVD	
Mesa Verde	780'	Some gas bearing
Sego	2,627'	
Castlegate	2,878'	Some water bearing
Mancos B	3,998'	Some oil and/or gas bearing
Mancos Shale	4,361'	Some oil and/or gas bearing

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and protected.

3. BLOWOUT PREVENTION & PRESSURE CONTROL

- See attached blowout preventer diagram.

Blowout preventer (BOP) and related equipment (BOPE) will be installed, used, maintained, and tested in the manner necessary to assure well control and will be in place and operational prior to drilling the surface casing unless otherwise approved by the APD. The BOP and related control equipment will be suitable for operations in those areas which are subject to sub-freezing conditions. The BOPE will be based on known or anticipated sub-surface pressures, geologic conditions, accepted engineering practice, and surface environment. The working pressure of all BOPE will exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft.

The choke manifold and accumulator will meet or exceed Onshore Oil and Gas Order No. 2 and/or UDOGM standards. All choke lines will be straight lines unless turns use tee blocks or are targeted with running tees and will be anchored to prevent whip and reduce vibration. The BOP equipment will be tested when initially installed, whenever any seal subject to test pressure is broken, after any repairs to the equipment and at 30-day intervals. Pipe rams, blind rams and annular preventer will be activated on each trip and weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will be documented on rig "tower sheets".

BOP's and choke manifold will be installed and pressure tested before drilling out of surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventers and related pressure control equipment will be pressure tested to related working pressure of the stack assembly, if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly, or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield.

A manual locking device (i.e. hand wheels) or automatic locking devices shall be installed on the system. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. The valve will be maintained the open position and will be closed only when the power source for the accumulator system is inoperative. Remote controls will be readily accessible to the driller.

Remote controls for the 2M system will be capable of closing all preventers. Remote controls for the 2M system or greater will be capable of both opening and closing all preventers. Master controls will be at the accumulator and will be capable of opening and closing all preventers and the choke line valves (if so equipped).

The drilling rig has not been selected for this well. Selection will take place after approval of this application is granted. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 (OSO #2) for 2,000 psi system.

Auxiliary Equipment:

Annual preventer, or double ram, or two rams with one being blind and one being a pipe and kill line (2" minimum), 1 kill valve (2" minimum) 1 choke line valve, 2 chokes, upper kelly cock valve with handle available, safety valve and subs to fit all drill strings in use, choke line (2" minimum), and fill-up line above the uppermost preventer.

4. CASING PROGRAM

Depth (MD)	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 500'	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface (±205 sxs Class G)*
0' – 4,461'	7-7/8"	4-1/2"	J-55 11.6# LT&C New	To surface (Lead: ±595 sxs Econocem; Tail: ±355 sxs Econocem)*

* Cement calculated at gauge hole +75% excess.

Design Criteria:

Casing Descriptions	Tension	Burst	Collapse
8-5/8" 24# J-55 STC	244,000 lbs	2,950 psi	1,370 psi
4-1/2" 11.6# J-55 LTC	162,000 lbs	5,350 psi	4,960 psi

5. CEMENT PROGRAM

Yields:	Surface		Class G yield	=	1.15 ft ³ /sx (15.8 ppg) 5.00 gps
	Production	Lead	Econocem yield	=	1.99 ft ³ /sx (12.3 ppg) 11.02 gps
		Tail	Econocem yield	=	1.77 ft ³ /sx (12.8 ppg) 9.36 gps

Cement additives – (Note: Some additives are Baker Hughes proprietary products. If another cement contractor is used, these blends and products may vary slightly).

Cement additives:

Surface		Class G 2% CaCl ₂ 1/4#/sxs Flocele
Production	Lead	Econocem 0.2% Haldad R-322 1/4#/sxs Pol-E-Flake 0.2% VeraSet
	Tail	Econocem 0.2% Haldad R-322 1/4#/sxs Pol-E-Flake 0.3% VeraSet

If necessary, 100' of the casing top will be 1-inched with Class "G" cement.

6. MUD PROGRAM

0'	-	500'	Fresh Water/Spud Mud MW: 8.5 – 8.9 ppg Visc.: 35 – 40 sec WL: NC
500'	-	TD	3% KCI Polymer MW: 8.6 – 9.3 ppg Visc.: 38 - 45 sec WL: 5 - 7

The hole will be drilled using conventional rotary drilling mud circulating equipment. Mud circulating equipment, water, and sack mud materials sufficient to maintain the capacity of the hole and circulating tanks will be on location. A closed loop mud system will be used.

7. LOGGING, CORING TESTING PROGRAM

Type Log Suite	Interval Top	Interval Bottom
Resistivity	Base of surface casing	TD
Density-Neutron	Base of surface casing	TD
Gamma Ray	Surface	TD
Coring	None Planned	
Testing	None Planned	

8. GEOLOGIC CONDITIONS

Estimated maximum expected bottom hole pressure: 1,561 psi
 Estimated maximum expected bottom hole temperature: 130⁰ F
 Abnormal pressures: None anticipated
 Abnormal temperatures: None anticipated
 Additional potential hazards: None anticipated
 H₂S is not expected.

9. ADDITIONAL FACETS OF PROPOSED OPERATIONS

Anticipated Start Date:

July 1, 2013

Completion:

The location pad will be sufficient size to accommodate all completion equipment activities and equipment. A string of 2 3/8", 4.7#, N-80, EUE 8rd will be run as production tubing. A Sundry Notice (SN) will be submitted with a revised completion program, if warranted.

Returned Unapproved

Foundation Energy Management, LLC
Davis Canyon 7-12-13-25
 1,610' FSL 1,902' FEL (NW/4 SE/4)
 Sec. 12 T13S R25E
 Uintah County, Utah
 Surface: Federal
 Federal Mineral Lease: UTU70247
 Federal Displacement Point II Unit: UTU89378X

SURFACE CASING AND CENTRALIZER DESIGN

Proposed Total Depth: 4,461 ' TVD
 Proposed Depth of Surface Casing: 500 ' MD
 Estimated Pressure Gradient: 0.35 psi/ft
 Bottom Hole Pressure at 4,461 ' = 1,561 psi
 $0.35 \text{ psi/ft} \times 4,461' = 1,561 \text{ psi}$
 Hydrostatic Head of gas/oil mud: 0.22 psi/ft
 $0.22 \text{ psi/ft} \times 4,461' = 981 \text{ psi}$

Maximum Design Surface Pressure

Bottom Hole Pressure – Hydrostatic Head
 $(0.35 \text{ psi/ft} \times 4,461') - (0.22 \text{ psi/ft} \times 4,461')$
 $1,561 \text{ psi} - 981 \text{ psi} = 580 \text{ psi}$

Casing Strengths 8-5/8" 24# J-55

Wt.	Tension (lbs)	Burst (psi)	Collapse (psi)
24 #	244,000	2,950	1,370

Safety Factors

Tension (Dry): 1.8 Burst: 1.0 Collapse: 1.125

Tension (Dry): 24 # / ft x 500 ' = 12,000 #

Safety Factor = $\frac{244,000}{12,000} = 20.33$ ok

Burst: Safety Factor = $\frac{2,950 \text{ psi}}{580 \text{ psi}} = 5.09$ ok

Collapse: Hydrostatic = $0.052 \times 9.0 \text{ ppg} \times 500' = 234 \text{ psi}$
 Safety Factor = $\frac{1,370 \text{ psi}}{234 \text{ psi}} = 5.85$ ok

Use 500 ' 8-5/8" 24# J-55

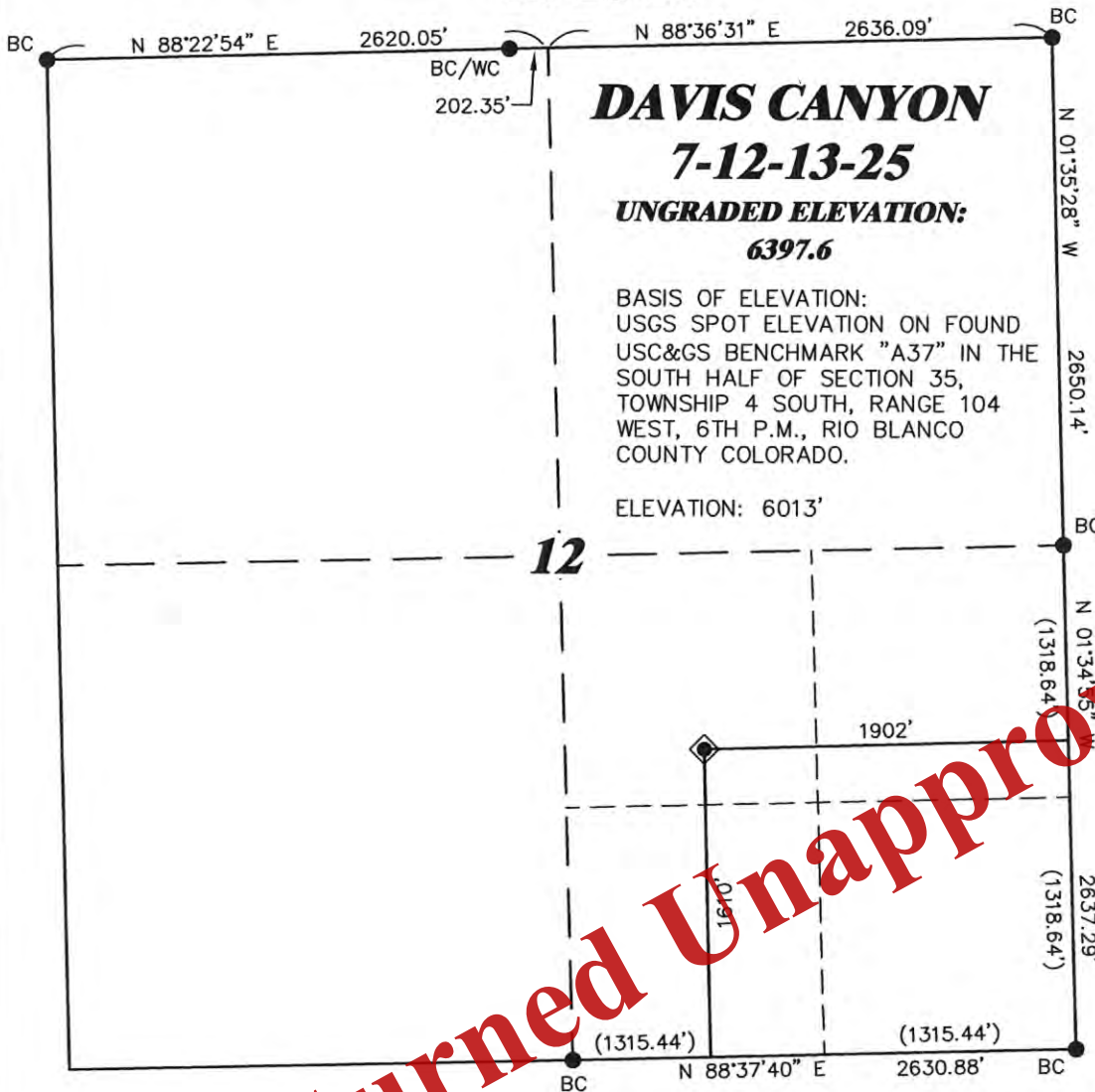
Use 2,000 psi minimum casinghead and BOP's

Centralizers

6 Total
 1 near surface at 160'
 3 -1 each at middle of bottom joint, second joint, third joint
 2 -1 each at every other joint ±80' spacing
 Total centralized ± 440 ' (60 ' – 500 ')

Note that field experience indicates that additional centralizers greatly increase the chance of "sticking" the surface casing prior to reaching surface casing total depth.

R. 25 E.



UTAH SPC
CENTRAL ZONE
GRID NORTH

SCALE' 1" = 1000'
500' 0

T. 13 S.

LATITUDE (NAD 83)
NORTH 39.698499 DEG.
LONGITUDE (NAD 83)
WEST 109.064305 DEG.

LATITUDE (NAD 27)
NORTH 39.698527 DEG.
LONGITUDE (NAD 27)
WEST 109.063640 DEG.

NORTHING (NAD 27)
506574.55

EASTING (NAD 27)
2685435.86

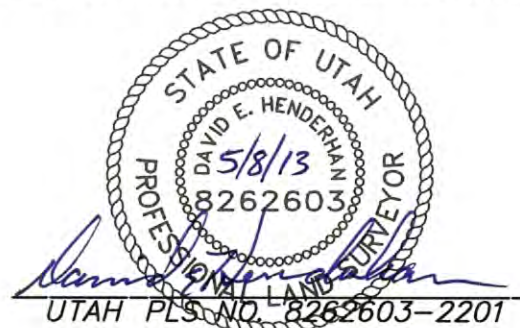
BASIS OF BEARINGS
THE BASIS OF BEARINGS
FOR THIS PLAT IS THE
EAST LINE OF THE
SOUTHEAST QUARTER OF
SECTION 12, T 13 S,
R 25 E, SALT LAKE
BASE AND MERIDIAN,
MONUMENTED WITH
BRASS CAPS AND
BEARING N 01°34'55" W.

SURVEYOR'S STATEMENT

I, DAVID E. HENDERHAN, OF GRAND JUNCTION, COLORADO, HEREBY STATE: THIS MAP WAS MADE FROM NOTES TAKEN DURING AN ACTUAL FIELD SURVEY DONE UNDER MY DIRECT SUPERVISION ON 6th DAY OF MAY, 2013 AND THAT THIS PLAT CORRECTLY SHOWS THE LOCATION OF DAVIS CANYON 7-12-13-25 AS STAKED ON THE GROUND.

LEGEND

- ◆ WELL LOCATION
- FOUND MONUMENT



RIFFIN & ASSOCIATES, INC.
1414 ELK ST., ROCK SPRINGS, WY 82901

(307) 362-5028

DRAWN: 10/23/12 - DEH

SCALE: 1" = 1000'

REVISED: 5/7/2013 - RAS

DRG JOB No. 19590

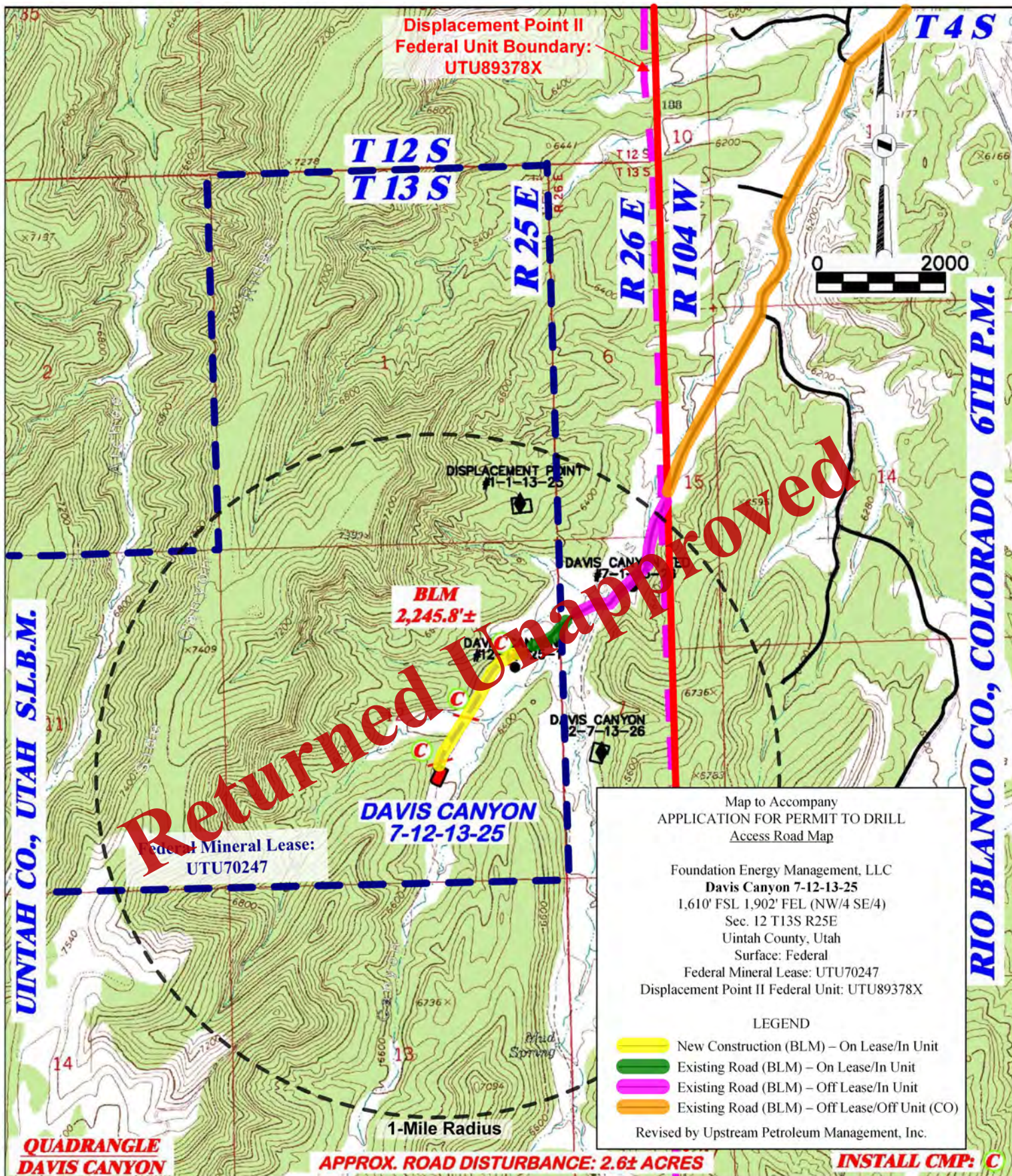
MOVED PAD LOCATION

EXHIBIT 1

**PLAT OF DRILLING LOCATION
FOR
FOUNDATION ENERGY MANAGEMENT**

**1610' F/SL, & 1902' F/EL, NWSE SECTION 12,
T. 13 S., R. 25 E., SLBM,
UINTAH COUNTY, UTAH**

Received: June 29, 2016



DRG RIFFIN & ASSOCIATES, INC. (307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901	
DRAWN: 10/23/12 - DEH	SCALE: 1" = 2000'
REVISED: 5/7/2013 - RAS	DRG JOB No. 19590
MOVED PAD LOCATION	TOPO B

PROPOSED ROAD FOR FOUNDATION ENERGY MANAGEMENT DAVIS CANYON 7-12-13-25 SECTION 12, T. 13 S., R. 25 E.	
TOTAL PROPOSED LENGTH: 2,245.8±	
PROPOSED ROAD — — — —	EXISTING ROAD —————

Received: June 29, 2016

Foundation Energy Management, LLC
Davis Canyon 7-12-13-25
1,610' FSL 1,902' FEL (NW/4 SE/4)
Sec. 12 T13S R25E
Uintah County, Utah
Surface: Federal
Federal Mineral Lease: UTU70247
Federal Displacement Point II Unit: UTU89378X

SURFACE USE PLAN OF OPERATIONS

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. This NOS process included an onsite meeting on April 25, 2013, prior to the submittal of the application, at which time the specific concerns of Foundation Energy Management, LLC (Foundation) and the BLM were discussed. All specific concerns of the BLM representatives are addressed herein, as are specific stipulations from the BLM.

* Specific stipulations arising from the onsite meeting are shown as starred.

WELL LOCATION AND INTRODUCTION:

The wellsite was originally staked at 1,674' FSL 1,775' FEL (NW/4 SE/4) of Sec. 12 T 13S R25E on September 29, 2012. Per a BLM request at the onsite the well was moved 64' south and 127' west (142' southwest) of the originally staked location. The wellsite was re-staked at 1,610' FSL 1,902' FEL (NW/4 SE/4) of Sec. 12 T13S R25E on May 6, 2013, by DR Griffin & Associates, Inc. (DRG), surveyor, on a site that is geologically and topographically acceptable. The location lies within the federal Displacement Point II Unit boundary identified by federal Serial Register Number UTU89378X.

An NOS was submitted to BLM in Vernal on November 15, 2012 for this location. An onsite meeting was held on April 25, 2013. Present were: James Hereford and Paul Percival - BLM; Mark Heksel - DR Griffin; and Keith Dana - Permit Agent. Requirements were discussed at the BLM onsite meeting.

DIRECTIONS TO LOCATION (See Topos A and B)

Begin at the intersection of State Highway 45 and County Road 3460 in the Town of Bonanza, Utah and drive southerly on Highway 45 for ±4.6 miles. Turn left onto County Road 4180 (Dragon Road) and drive southwesterly for ±3.9 miles to a "T" intersection with County Road 4190 (Kings Wells Road). Turn left, continuing on County Road 4180 and drive southerly for ±8.8 miles to a "Y" intersection with County Road 4360 (Three Mile Canyon Road). Bear left continuing on County Road 4180 and drive southeasterly for ±6.8 miles to the Colorado/Utah State Line. Continue onto Rio Blanco County, Colorado County Road 25 and drive southeasterly for ±1.4 miles to a "T" intersection with Davis Canyon Road. Turn right onto Davis Canyon service road and drive southwesterly for ±2.6 miles back into the State of Utah to the staked access road for the Davis Canyon 7-12-13-25 wellsite. Turn right on the proposed access road for the Davis Canyon 7-12-13-25 and drive northwesterly ±2,246' (0.43 miles) to reach the proposed wellsite.

1) EXISTING ROADS (See Topos A and B)

- A) The well is an exploratory well.
- B) Existing roads within 1.00 mile consists of a gravel resource road which will provide access to the proposed location.
- C) Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present.

Received: June 29, 2016

2) PLANNED ACCESS ROADS (See Topos A and B)

±2,246	(0.43 miles)	Sec. 12 T13S R26E	BLM	On Lease
±2,246'	(0.43 miles)	Total New Road Construction		

- A) Running surface width to be approximately 14'-16', total disturbed width to be no more than 40'. Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present. A regular maintenance plan will include, but not be limited to blading, ditching, and surfacing.
- B) Borrow ditches to be backsloped 3:1 or shallower. Weather permitting, the access road will be mowed and the borrow ditch material will be pulled over the top of the mowed area.
- C) Maximum grades will not exceed BLM standards.
- D) Three (3) 18" x 30' culverts will be installed. Culverts will be installed prior to commencement of drilling operations. Riprap will be placed at the inlet and outlet of any installed culverts. Drainage may consist of wing ditches between the existing road and the wellsite if necessary, and will be installed prior to commencing drilling operations. The borrow ditches along the proposed access road will be re-seeded if the well is completed as a producer. The reseeded of the borrow ditches will reduce the area utilized by this location.
- E) Surfacing material, if necessary, will consist of native material from borrow ditches. The topsoil will be cleared by fanning back during the construction and crowning of the road. Upon commencement of road construction, the topsoil will be replaced in the borrow ditches.
- F) No major road cuts are necessary.
- G) Fence cuts, gates and cattle guards will not be required.
- H) Road construction on public lands shall meet the minimum standards listed in BLM Manual Section 9113 and shall be constructed under the direction of a qualified construction supervisor(s). The qualified construction supervisor shall be an engineer, company superintendent or other representative who is competent and knowledgeable in oilfield road and drillsite construction, and able to speak for the operator. The dirt contractor, or drilling/completion foremen, whose primary expertise is not in construction, do not qualify as construction supervisors.

3) LOCATION OF EXISTING WELLS

Oil and Gas Wells: See Wells within a 1-Mile Radius Topo Map.
Water Wells : None.

LOCATION OF EXISTING PRODUCING FACILITIES OPERATED BY FOUNDATION

There are currently no production facilities on this location. Once it is determined if the well will be completed as a producer, production facilities will be engineered and implemented at that time. Operations will follow 43 CFR 3160 and a Sundry Notice (SN) on Form 3160-5 will be submitted with construction facilities prior to commencing any construction activities.

4) NEW PRODUCTION FACILITIES PROPOSED (Figure 1,1A and 3)

- A) BLM will be contacted prior to construction of production facilities. A SN will be filed if requested by BLM.
- B) Dimension of Proposed Facility of the pad is 200' x 290' (including cuttings pit) = 58,000 ft², for drilling operations. Total disturbance will be ±2.3 acres.

- C) Traveled portion of production site will be gravel surfaced upon completion of production facility installation and prior to production. Site preparation for production will be done with standard excavation equipment using native materials. Additional surface material will be obtained from commercial sources or an approved borrow area. Construction and maintenance will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- * D) Production equipment will be painted light reflective colors to limit evaporation and waste of liquid hydrocarbons. All above ground permanent structures will be painted to blend with the surrounding landscape. The color specified is given with the Pantone® reference color, Beetle (19-0312 TPX).
- E) Production facilities may vary according to actual reservoir discovered and will be engineered upon completion of well tests. Production facilities will be clustered and placed away from cut/fill slopes to allow the maximum recontouring of cut/fill slopes. To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops). The tallest structure will be no greater than 20' in height.
- F) If well is a producer all production facilities will be authorized by a SNL.
- G) No facilities will be constructed off location.
- 5) LOCATION OF WATER SUPPLY
- A) Water will be transported by truck from the Ouray Municipal Water Plant in Ouray, Utah, or Target Trucking Inc.'s water source in the SW/4 SW/4 of Section 35, T9S R22E under existing permits or other available commercial sources under existing permits. If a closer water source is identified and deemed usable, Foundation will notify the Authorized Officer (AO) with the necessary information.
- B) Anticipated water use is as follows:
Mud drilling water requirements are anticipated to be approximately 10,814 bbls
(454,188 gallon [US, liquid] = 1.3938419 acre foot [US survey]).
Road watering will be done only if dry conditions dictate, and would utilize approximately 900 bbls (37,800 gallons or 0.11 acre feet).
- 6) SOURCE OF CONSTRUCTION MATERIALS
- A) Construction materials will consist of native materials from borrow ditches and location areas.
- B) Surfacing materials will be obtained from available permitted sources, if needed, and consist of pit gravel.
- 7) WASTE DISPOSAL
- A) Drill cuttings will be buried in cuttings pit when dry.
- B) A closed loop system will be used, no reserve pit required.
- C) Cuttings pit will be fenced on three sides during drilling operations, and on fourth side at time of rig release. Pit will remain fenced until backfilled.
- D) Flare pit for air drilling will (if used) be located minimum 100' from wellbore.
- E) Produced fluid will be contained in test tanks during completion and testing.
- F) Sewage disposal facilities will be in accordance with State and Local Regulations. Sewage may not be buried on location or put in a borehole. Utah Department of Environmental Quality (UT DEQ) Regulations prevent this unless a UT DEQ Permit is obtained.

- G) Garbage and other waste - burnable waste will be contained in a portable trash cage which will be totally enclosed with small mesh wire. Cage and contents will be transported to and trash dumped at a UT DEQ approved Sanitary Landfill upon completion of operations.
- H) Trash will be picked up if scattered and contained in trash cage as soon as practical after rig is moved off.
- I) Upon release of the drilling rig, rathole and mousehole will be filled. Debris and equipment not required for production will be removed.
- 8) ANCILLARY FACILITIES
No ancillary facilities will be necessary.
- 9) WELLSITE LAYOUT (See Figures 1, 1A, 2, and 3)
- A) See attached drillsite plat and cut/fill diagram.
- B) Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment may be moved so proper recontouring and revegetation can occur.
- * D) Six inches (6") of topsoil will be removed prior to location construction from the cuttings pit area and/or any other disturbed areas. Topsoil will be stockpiled adjacent to the wellsite within the maximum disturbed area.
- E) Topsoil and spoils pile will be clearly separated.
- F) Erosion control measures will be applied pursuant to Foundation's General Permit to Discharge Stormwater under the Utah Pollutant Discharge Elimination System and accompanying Stormwater Pollution Prevention Plan.
- * G) All production equipment will be placed in the NW corner of the pad near the access road.
- * H) The northeast, southeast and southwest corners of the pad will be rounded.
- 10) PIPELINES AND FLOWLINES
If necessary, a separate Right-of-Way (ROW) application for the pipeline route will be submitted under separate cover.
- 11) SURFACE RESTORATION (General)
- A) Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- B) Earthwork for interim and final reclamation must be completed within six (6) months of well completion or plugging (weather permitting).
- C) In areas that will not be drill-seeded, the seed mix will be broadcast-seeded at twice the application rate shown and covered 0.25 to 0.5 inches deep with a harrow or drag bar or will be broadcast-seeded into imprints, such as fresh dozer cleat marks.
- D) No seeding will occur from winter freezing of the soil until August 14. Fall seeding is preferred and will be conducted from August 15 and prior to ground freezing.

- E) Annual or noxious weeds shall be controlled on all disturbed areas as directed by the Field Office Manager. An intensive weed monitoring and control program will be implemented beginning the first growing season after interim and final reclamation. Noxious weeds that have been identified during monitoring will be promptly treated and controlled. A Pesticide Use Proposal (PUP) will be submitted to the BLM for approval prior to the use of herbicides. All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species. The operator will coordinate all weed and insect control measures with state and/or local management agencies.
- F) Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical.
- G) Reclamation monitoring will be documented in a reclamation report and submitted to the AO. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for: Initial Disturbed Acres; Successful Interim Reclaimed Acres; Successful Final Reclaimed Acres. Reports will not be submitted for sites approved by the AO in writing as having met interim or final reclamation standards. Any time 50% or more of a reclaimed area is re-disturbed, monitoring will be reinitiated.
- H) The AO will be informed when reclamation has been completed, is successful, and the site is ready for final inspection.
- * I) A Weed Plan is being submitted as an attachment.
- * J) A General Reclamation Plan is being submitted as an attachment.
- * K) A reference area for the reclamation plan will be located and used as a reference for the final reclamation.

INTERIM RESTORATION (Production)

- A) Rehabilitation of unneeded, previously disturbed areas will consist of backfilling and contouring the cuttings pit area, back sloping and contouring all cut/fill slopes. These areas will be re-seeded.
- B) Wellpad size will be reduced to minimum size necessary to conduct safe operations. Cuts/fills will be reduced to 3:1 or shallower.
- C) The cuttings pit will be closed and backfilled as soon as the pit contents are dry enough to do so, or no later than the end of the next full summer following rig release, whichever comes first, to allow sufficient time for the pit contents to dry. The cuttings pit remaining open after this period will require written authorization of the AO. Immediately upon well completion, any hydrocarbons or trash in the cuttings and flare pits will be removed. Pits will be allowed to dry, be pumped dry, or solidified in-situ prior to backfilling.
- D) Following completion activities if it was necessary to line the pit, pit liners will be removed or removed to the solids level and disposed of at an approved landfill, or treated to prevent their reemergence to the surface and interference with long-term successful revegetation. If it was necessary to line the pit with a synthetic liner, the pit will not be trenched (cut) or filled (squeezed) while containing fluids. When dry, the pit will be backfilled with a minimum of five (5) feet of soil material. In relatively flat areas, the pit area will be slightly mounded to allow for settling and to promote surface drainage away from the backfilled pit.
- E) The portions of the cleared well site not needed for operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Sufficient level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.

- F) Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including road cuts/fills and to within a few feet of the production facilities, unless an all-weather, surfaced, access route or small “teardrop” turnaround is needed on the well pad.
- G) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix designed by BLM (shown below) to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut/fill slopes.
- H) To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, debris, and rock over recontoured cut/fill slopes.

- * I) A proposed seed mixture for this location is:

3#/acre PLS	-	Galleta
3#/acre PLS	-	Bluebunch wheatgrass
2#/acre PLS	-	Four-wing saltbush
1#/acre PLS	-	Bluegrass
1#/acre PLS	-	Annual ryegrass
1/2#/acre PLS	-	Blue flax
10-1/2# acre PLS	-	Total

- J) Reclamation will be considered successful if the following criteria are met:
 75 percent of predisturbance cover within five (5) years of initial reclamation.
 80 percent dominate species with no noxious weeds*
 Erosion features equal to or less than surrounding area
 * The vegetation will consist of species included in the seed mix and/or occurring in the surrounding natural vegetation.

FINAL RESTORATION (P & A – Removal of equipment)

- A) Flowlines on location will be removed before site reclamation and all flowlines between the wellsite and production facilities will remain in place and will be filled with water.
- B) If necessary to ensure timely revegetation, the pad will be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4th Edition, or will be fenced with operational electric fencing.
- C) Revegetation will be accomplished by planting mixed grasses as specified below. Revegetation is recommended for road area as well as around production site.
- * D) A proposed seed mixture for this location is:

3#/acre PLS	-	Four-wing saltbush
3#/acre PLS	-	Mountain Mahogany
2#/acre PLS	-	Galleta
2#/acre PLS	-	Bluebunch wheatgrass
2#/acre PLS	-	Western wheatgrass
1/2#/acre PLS	-	Blue flax
12-1/2#/acre PLS	-	Total

- E) Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed-free seed mix designed by BLM (shown above) to meet reclamation standards will be used. The seed mix will be used on all disturbed surfaces including pipelines and road cut/fill slopes.
- F) Distribute topsoil, if any remains, evenly over the location, and seed according to the above seed mixture. If needed the access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
- G) All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Re-salvaged topsoil will be spread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut/fill slopes.

12) GENERAL INFORMATION

- A) Project area is situated in the undulated uplands of the western part of the Uintah Basin.
- B) Topographic and geologic features - moderate relief area, moderately drained, rocky-clay deposition, surrounded by steep uplands with highly eroded drainages.
- C) Soil characteristics – rocky clay.
- D) Flora consists of: Juniper, Pinon Pine, Big sagebrush, Fourwing saltbrush, Matchbrush, Galleta, Desert parsley, Bluebunch wheatgrass, and Bluegrass.
- E) Fauna – observed: none. Anticipated: mule deer, elk, coyotes, rabbits, raptors, and rodents.
- F) Concurrent surface use – grazing and hunting.
- G) Mineral Lessor:

Bureau of Land Management

Vernal Field Office

170 South 500 East

Vernal, UT 84078

Phone: 435-781-4400

- H) Surface Owner

Drillsite/Access :

Bureau of Land Management

Vernal Field Office

170 South 500 East

Vernal, UT 84078

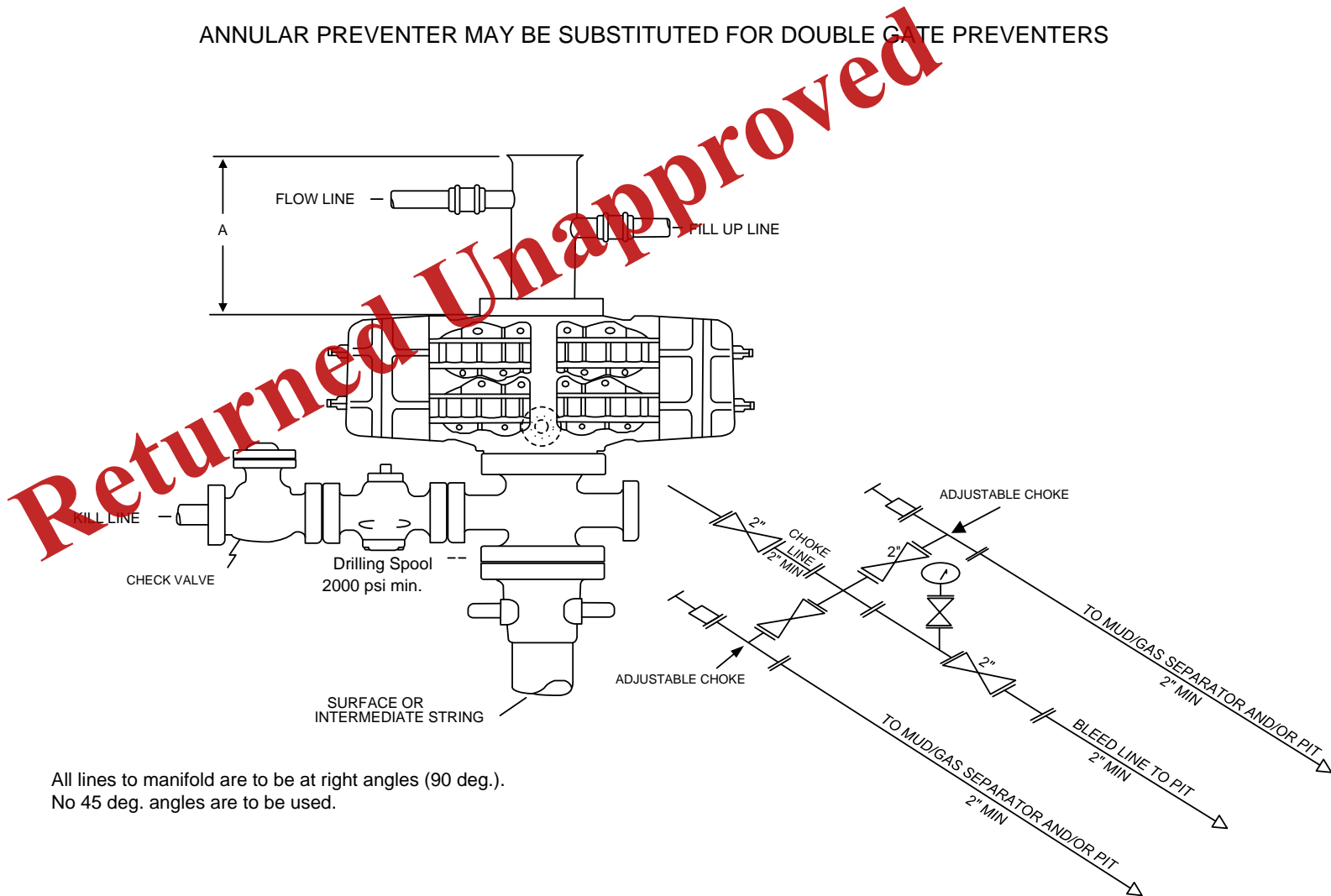
Phone: 435-781-4400

- I) Proximity of water, occupied dwellings or other features: un-named intermittent drainage $\pm 350'$ to the southeast; flowing into Mud Spring.
- J) The archaeological field work has been completed and the information is contained in a Class III Cultural Resources Inventory (Utah State Project Number U-12-MM-1091b) for the proposed wellpad and access road. The report, dated January 21, 2013, was completed by Metcalf Archaeological Consultants, Inc. and submitted under separate cover to BLM.
- K) If any fossils are discovered during construction, the operator shall cease construction immediately and notify the AO so as to determine the significance of the discovery.
- L) A Class III (100% pedestrian) cultural resource inventory shall be completed prior to disturbance by a qualified professional archaeologist in the following areas: Well location. A report of the inventory will be submitted and approved by the BLM with stipulations as appropriate in order to comply with EO 11593 and Section 106 of the National Historic Preservation Act of 1966. See Section "General Information – K" above.

- M) The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the AO. The AO will inform the operator as to the work needed to determine the following:
- Whether the materials appear eligible for the National Register of Historic Places;
 - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in site preservation is not necessary); and,
 - A timeframe for the AO to complete an expedited review to acquire the State Historic Preservation Officer's concurrence that the findings of the AO are correct and that mitigation is appropriate.
- N) Foundation maintains a file, per 29 CFR 1910.1200(g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances which are used during the course of construction, drilling, completion, and production operations for this project. Hazardous materials (substances) which may be transported across these lands may include drilling mud and cementing products which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous substances, EHS, and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

Returned Unapproved

ANNULAR PREVENTER MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTERS



All lines to manifold are to be at right angles (90 deg.).
No 45 deg. angles are to be used.

2M CHOKE MANIFOLD EQUIPMENT – CONFIGURATION MAY VARY

BLOWOUT PREVENTER

2,000 psi minimum

Foundation Energy Management, LLC
Davis Canyon 7-12-13-25
1,610' FSL 1,902' FEL (NW/4 SE/4)
Sec. 12 T13S R25E
Uintah County, Utah
Surface: Federal
Federal Mineral Lease: UTU70247
Federal Displacement Point II Unit: UTU89378X

APPLICATION FOR PERMIT TO DRILL
OPERATOR CERTIFICATION

LESSEE'S OR OPERATOR'S REPRESENTATIVE:

<u>Operator</u>	<u>Permit Agent</u>
Foundation Energy Management, LLC 1801 Broadway, Suite 408 Denver, Colorado 80202 Phone: 303-860-0504 Joel Sauer – VP, Land & Commercial Scott Ryan – Landman Matt Stark - Engineer	Upstream Petroleum Management, Inc. 7000 S. Yosemite St, Suite 290B Englewood, Colorado 80112 Phone: 303-942-0506 + Kim Rodell – President krodell@upstreampm.com + Andrea Gross – Project Coordinator agross@upstreampm.com * Keith Dana – Range Mgmt. Consultant Cell: 307-389-8227 krlcdana@centurylink.net

* Contact to arrange onsite meeting.

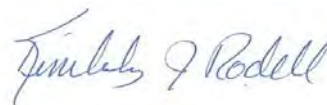
+ For any questions or comments regarding this permit.

OPERATOR CERTIFICATION:

I hereby certify that Foundation Energy Management, LLC and its contractors and sub-contractors are responsible for the operations conducted under this application subject to the terms and conditions of the mineral lease. Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Foundation Energy Management, LLC under their nationwide bond, BLM Bond No. COB000356.

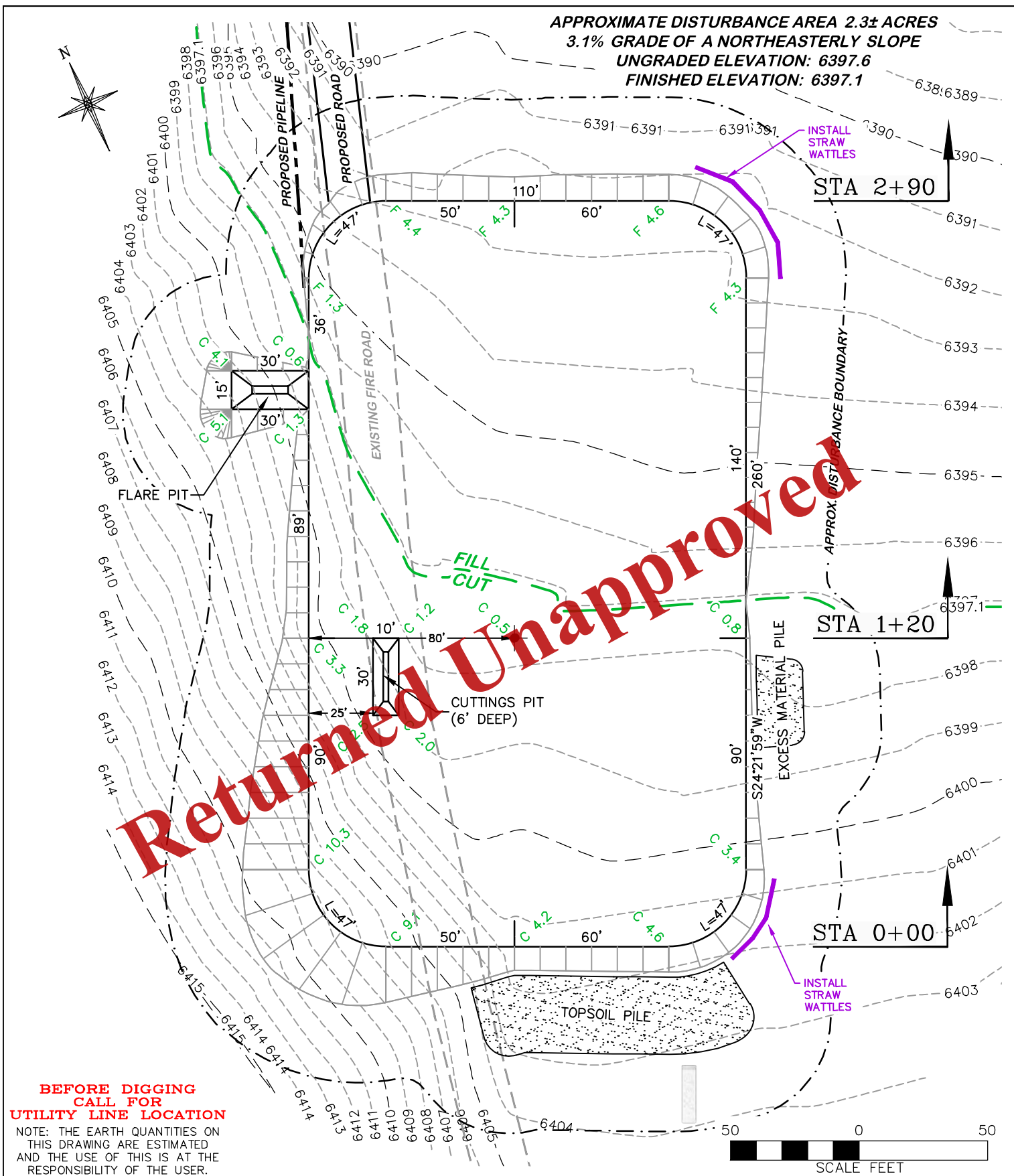
I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

May 20, 2013



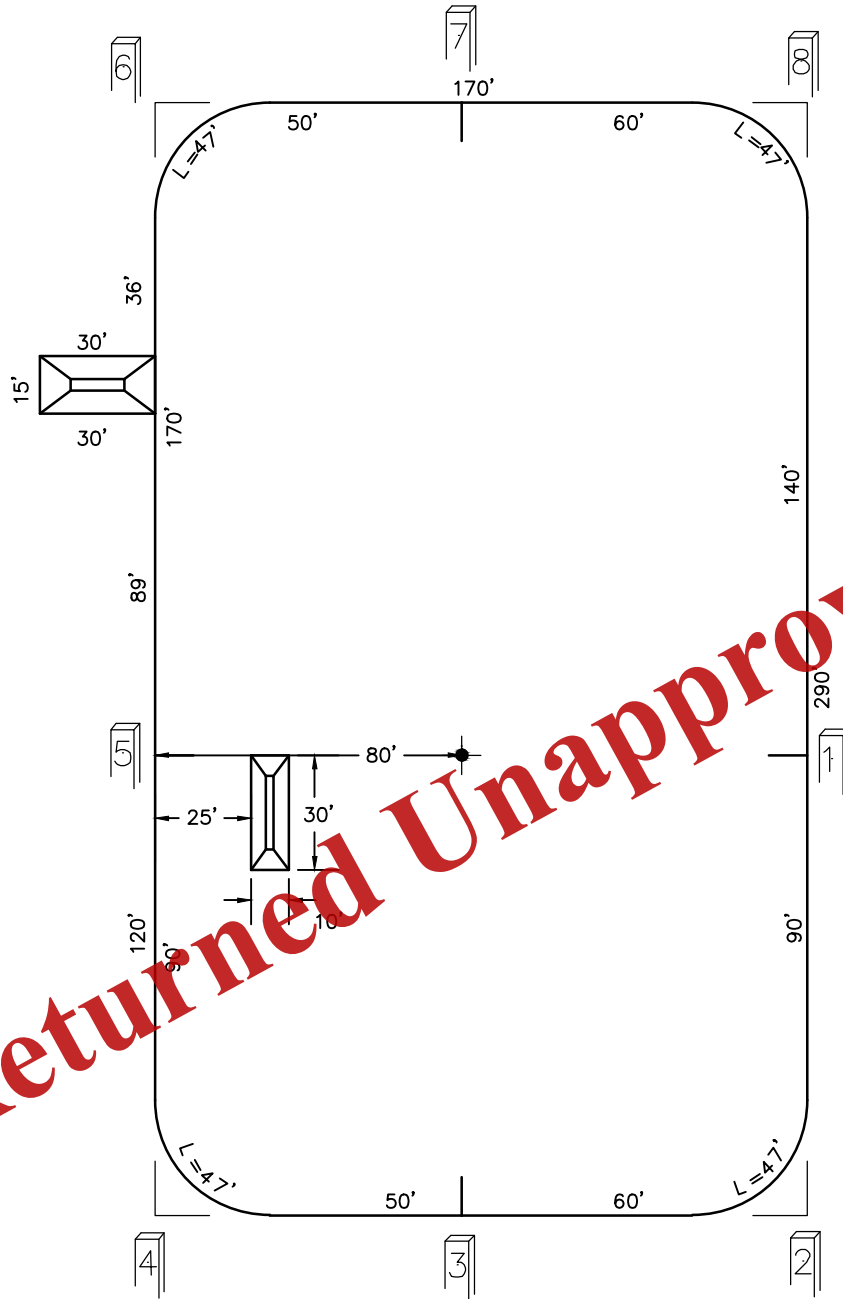
Kimberly J. Rodell
Permit Agent for:
Foundation Energy Management, LLC

Received: June 29, 2016



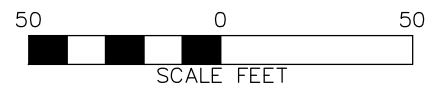
DRG RIFFIN & ASSOCIATES, INC. (307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901		FOUNDATION ENERGY MANAGEMENT DAVIS CANYON 7-12-13-25 SECTION 12, T. 13 S., R. 25 E.	
DRAWN: 10/23/12 - DEH	SCALE: 1" = 50'	UNGRADED ELEVATION: 6397.6 FINISHED ELEVATION: 6397.1	
REVISED: 5/7/2013 - RAS	DRG JOB No. 19590		
MOVED PAD LOCATION	FIGURE 1		

Received: July 05, 2016



**BEFORE DIGGING
CALL FOR
UTILITY LINE LOCATION**

NOTE: THE EARTH QUANTITIES ON
THIS DRAWING ARE ESTIMATED
AND THE USE OF THIS IS AT THE
RESPONSIBILITY OF THE USER.



DRG **RIFFIN & ASSOCIATES, INC.**
(307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901

DRAWN: 10/23/12 - DEH

SCALE: 1" = 50'

REVISED: 5/7/2013 - RAS

DRG JOB No. 19590

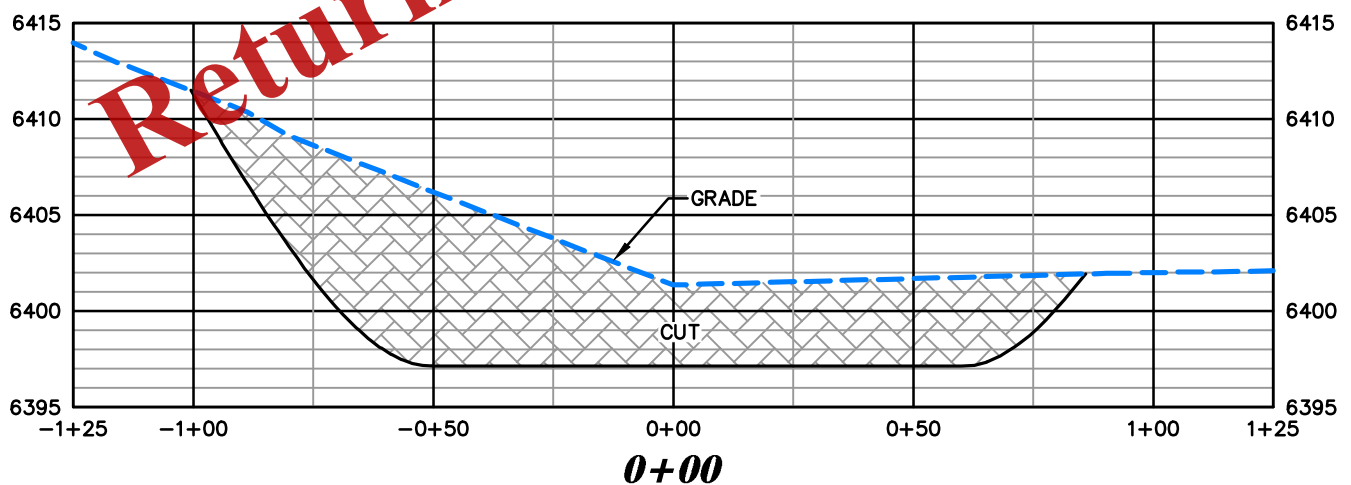
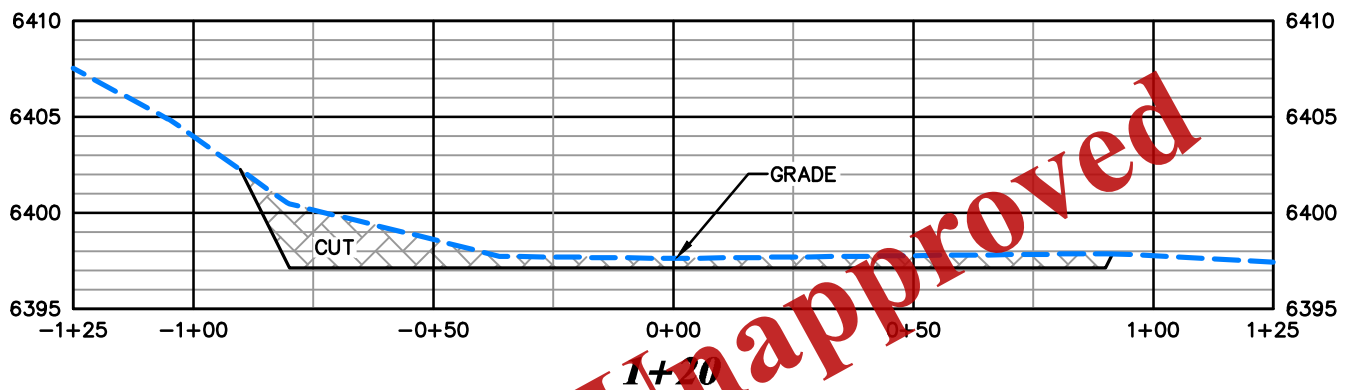
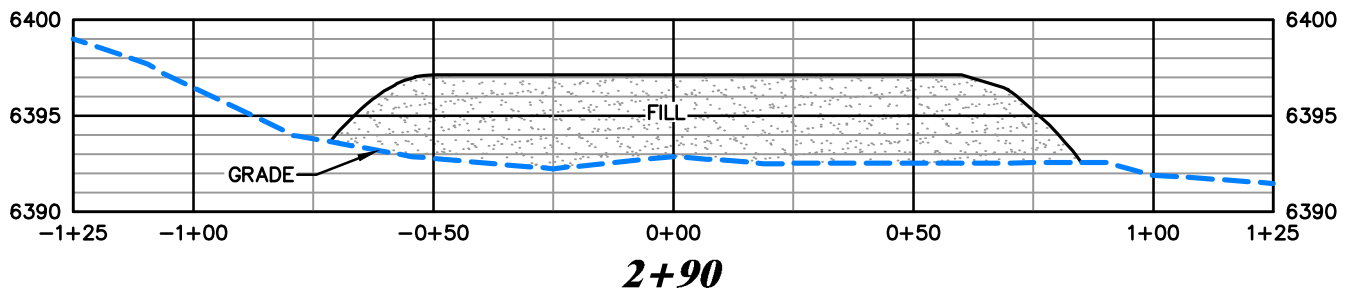
MOVED PAD LOCATION

FIGURE 1A

PAD LAYOUT
FOUNDATION ENERGY MANAGEMENT
DAVIS CANYON 7-12-13-25
SECTION 12, T. 13 S., R. 25 E.

UNGRADED ELEVATION: 6397.6
FINISHED ELEVATION: 6397.1

Received: July 05, 2016



DRG **RIFFIN & ASSOCIATES, INC.**
 (307) 362-5028 1414 ELK ST., ROCK SPRINGS, WY 82901

DRAWN: 10/23/12 - DEH

SCALE: HORZ 1" = 40' VERT 1" = 10'

REVISED: 5/7/2013 - RAS

DRG JOB No. 19590

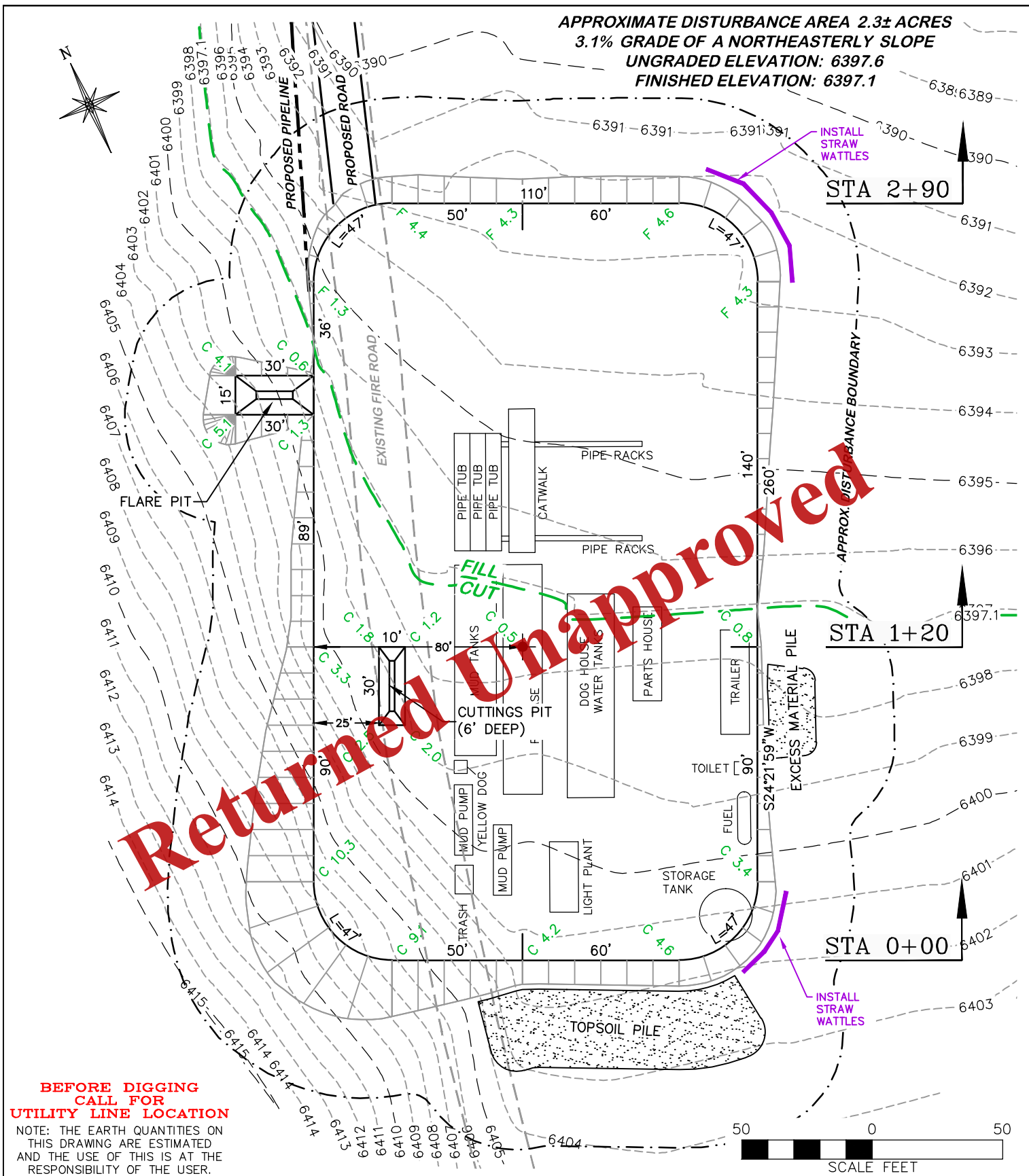
MOVED PAD LOCATION

FIGURE 2

FOUNDATION ENERGY MANAGEMENT
DAVIS CANYON 7-12-13-25
SECTION 12, T. 13 S., R. 25 E.

UNGRADED ELEVATION: 6397.6
 FINISHED ELEVATION: 6397.1

Received: July 05, 2016



DRG RIFFIN & ASSOCIATES, INC.

(307) 362-5028

1414 ELK ST., ROCK SPRINGS, WY 82901

FOUNDATION ENERGY MANAGEMENT
DAVIS CANYON 7-12-13-25
SECTION 12, T. 13 S., R. 25 E.

ESTIMATED EARTHWORK

		ITEM	CUT	FILL	TOPSOIL	EXCESS
DRAWN: 10/23/12 - DEH	SCALE: 1" = 50'	PAD	3,388 CY	2,269 CY	907 CY	212 CY
REVISED: 5/7/2013 - RAS	DRG JOB No. 19590	PIT	31 CY			31 CY
MOVED PAD LOCATION	FIGURE 3	TOTALS	3,419 CY	2,269 CY	907 CY	243 CY

Received: July 05, 2016

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101

IN REPLY REFER TO:
3160
(UT-922)

July 6, 2016

Memorandum

To: Assistant Field Office Manager Minerals,
Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2016 Plan of Development Displacement Point II Unit,
Uintah County, Utah.

Pursuant to email between Diana Mason, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2016 within the Displacement Point II Unit, Uintah County, Utah. Please refer to our memo dated June 11, 2013 for more information.

API #	WELL NAME	LOCATION
(Proposed PZ MANCOS)		
43-047-35546	Davis Canyon 2-7-13-26	Sec 07 T13S R26E 2535 FSL 0601 FWL
43-047-35547	Displacement Point 1-1-13-25	Sec 01 T13S R25E 0566 FSL 0508 FEL
43-047-35548	Davis Canyon 7-12-13-25	Sec 12 T13S R25E 1610 FSL 1902 FEL

This office has no objection to permitting the wells at this time.

MICHAEL COULTHARD

Digitally signed by MICHAEL
COULTHARD
Date: 2016.07.06 08:46:56 -06'00'

bcc: File - Displacement Point Unit II
Division of Oil Gas and Mining
UT920 - Reading File
Agr. Sec. Chron

MCoulthard:mc:7-6-16

Received: July 06, 2016



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

July 12, 2016

FOUNDATION ENERGY
MANAGEMENT, LLC
16000 N Dallas Parkway Ste 875
Dallas, TX 75248

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the Davis Canyon 7-12-13-25 well, API 43047555480000 that was submitted July 05, 2016 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason
Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah



